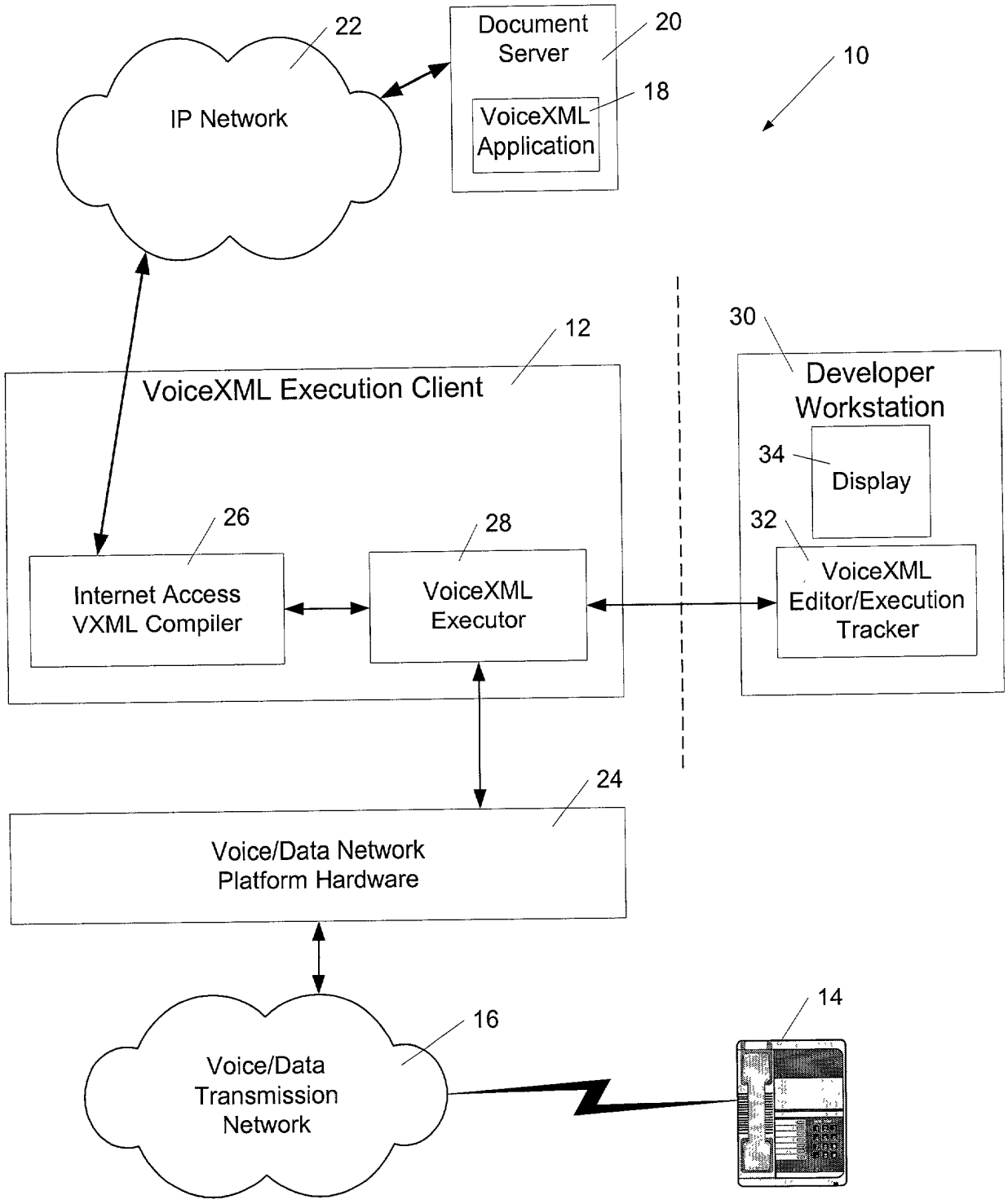
22
IP Network
Document Server
20
18
VoiceXML Application
10
12
VoiceXML Execution Client
30
Developer Workstation
34
Display
32
26
Internet Access VXML Compiler
28
VoiceXML Executor
VoiceXML Editor/Execution Tracker
24
Voice/Data Network Platform Hardware
16
Voice/Data Transmission Network
14

FIG. 1

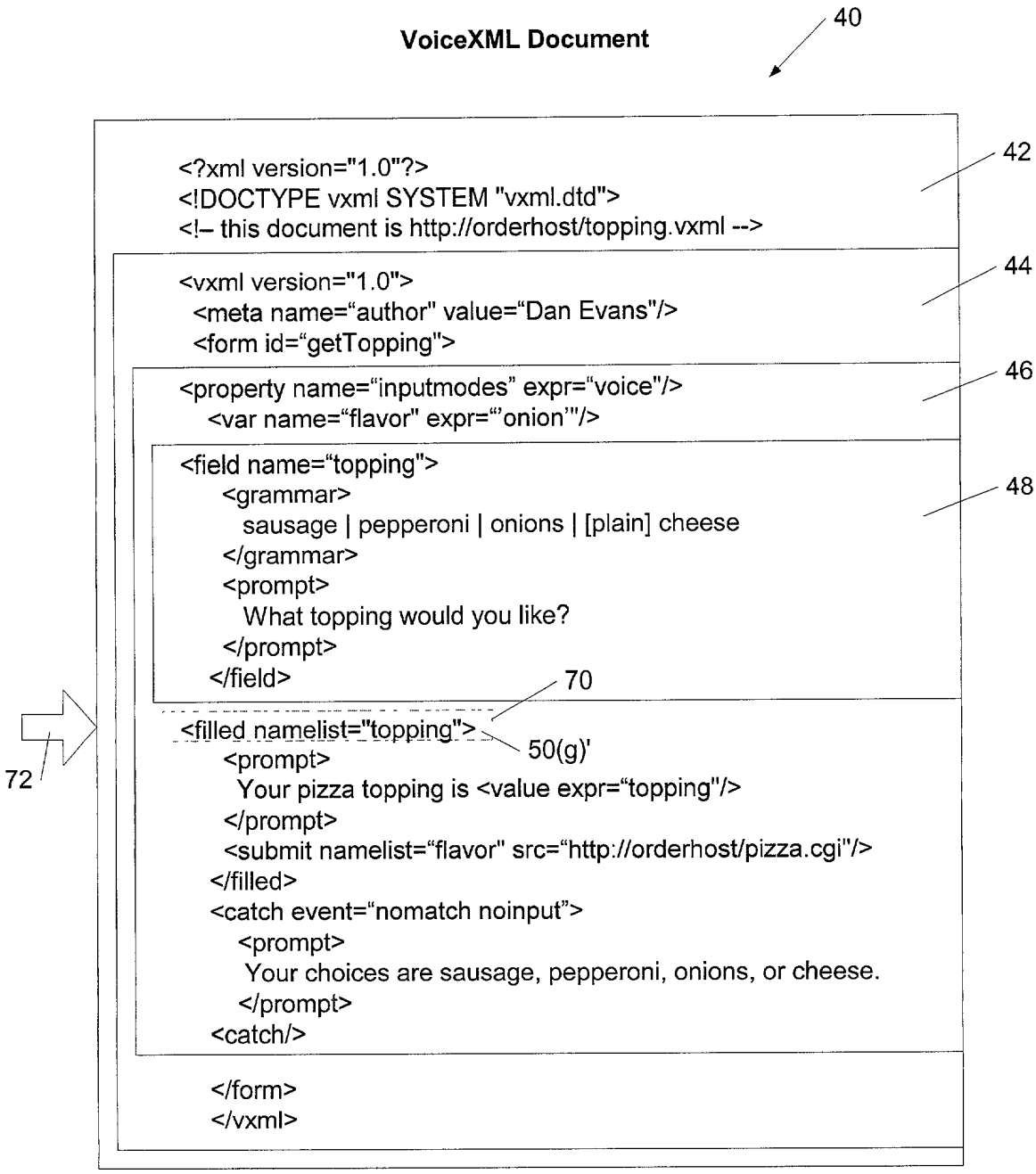
VoiceXML Document
40
<?xml version="1.0"?>
<!DOCTYPE vxml SYSTEM "vxml.dtd">
<!– this document is http://orderhost/topping.vxml -->
42
<vxml version="1.0">
<meta name="author" value="Dan Evans"/>
<form id="getTopping">
44
<property name="inputmodes" expr="voice"/>
<var name="flavor" expr="'onion'"/>
46
<field name="topping">
<grammar>
sausage | pepperoni | onions | [plain] cheese
</grammar>
<prompt>
What topping would you like?
</prompt>
</field>
48
70
<filled namelist="topping">
50(g)'
72
<prompt>
Your pizza topping is <value expr="topping"/>
</prompt>
<submit namelist="flavor" src="http://orderhost/pizza.cgi"/>
</filled>
<catch event="nomatch noinput">
<prompt>
Your choices are sausage, pepperoni, onions, or cheese.
</prompt>
<catch/>
</form>
</vxml>

FIG. 2

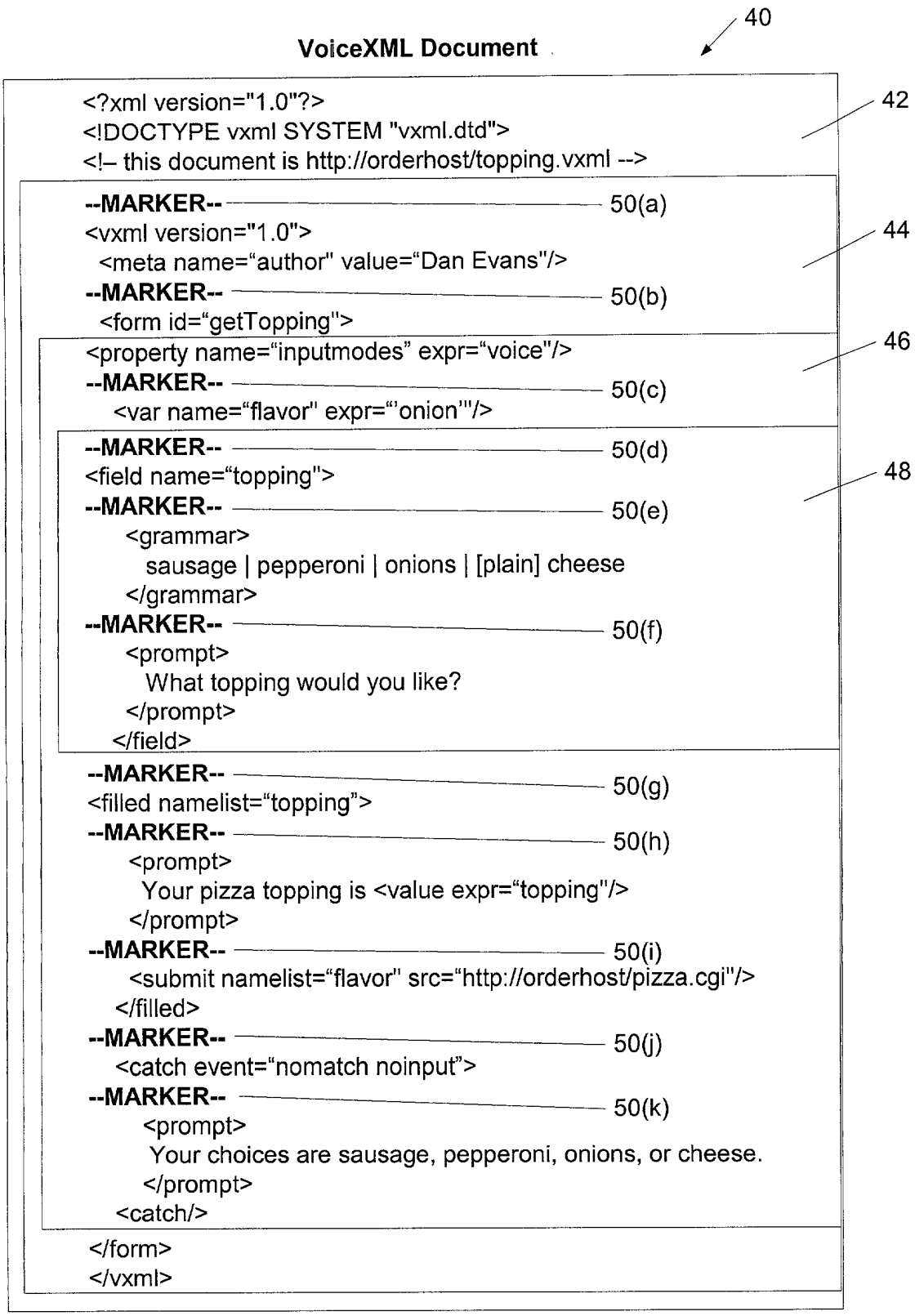
40
VoiceXML Document
<?xml version="1.0"?>
<!DOCTYPE vxml SYSTEM "vxml.dtd">
<!– this document is http://orderhost/topping.vxml -->
42
--MARKER-- 50(a)
<vxml version="1.0">
<meta name="author" value="Dan Evans"/>
44
--MARKER-- 50(b)
<form id="getTopping">
<property name="inputmodes" expr="voice"/>
46
--MARKER-- 50(c)
<var name="flavor" expr="'onion'"/>
--MARKER-- 50(d)
<field name="topping">
48
--MARKER-- 50(e)
<grammar>
sausage | pepperoni | onions | [plain] cheese
</grammar>
--MARKER-- 50(f)
<prompt>
What topping would you like?
</prompt>
</field>
--MARKER-- 50(g)
<filled namelist="topping">
--MARKER-- 50(h)
<prompt>
Your pizza topping is <value expr="topping"/>
</prompt>
--MARKER-- 50(i)
<submit namelist="flavor" src="http://orderhost/pizza.cgi"/>
</filled>
--MARKER-- 50(j)
<catch event="nomatch noinput">
--MARKER-- 50(k)
<prompt>
Your choices are sausage, pepperoni, onions, or cheese.
</prompt>
<catch/>
</form>
</vxml>

FIG. 3

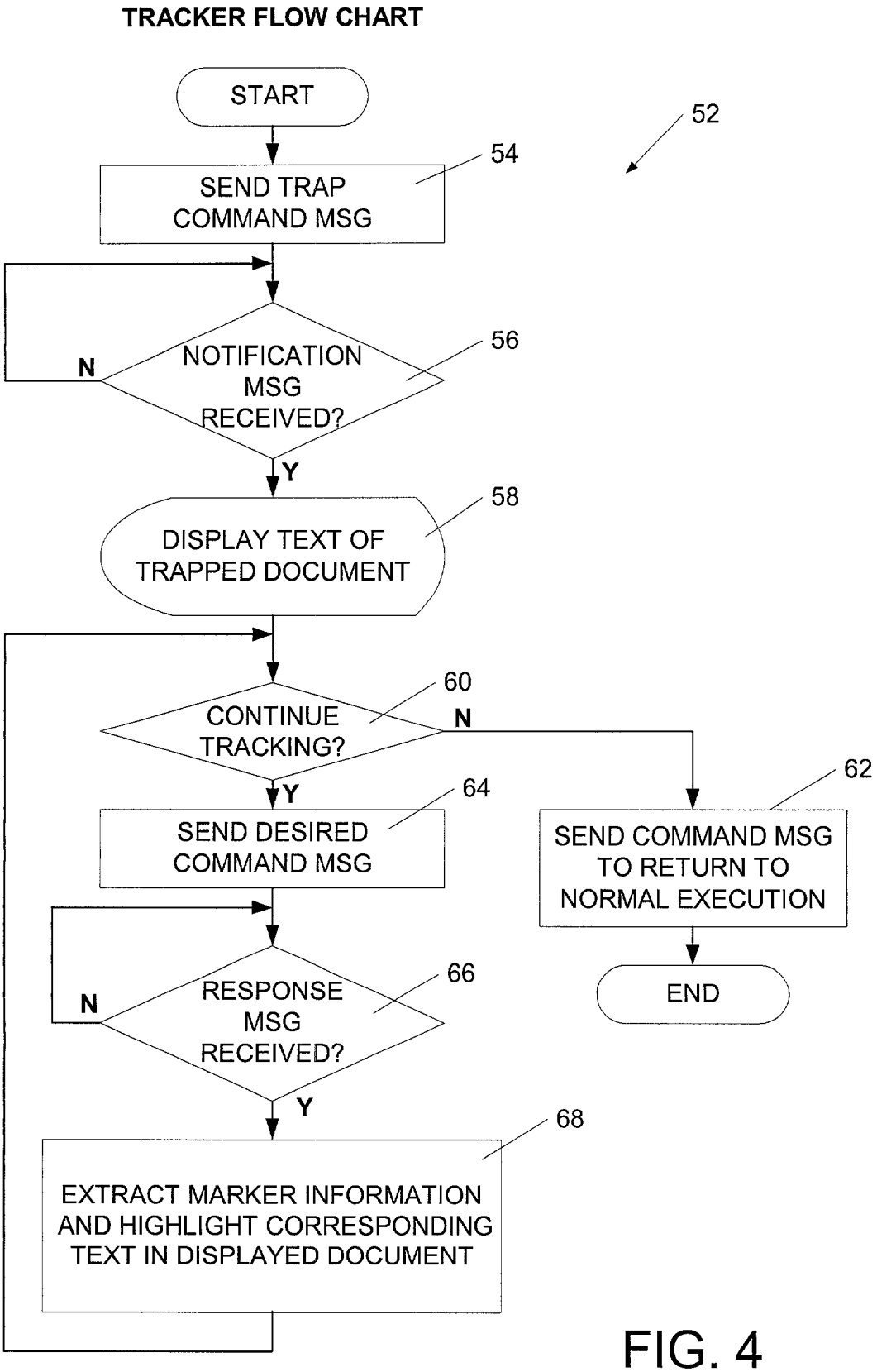
TRACKER FLOW CHART
START
52
SEND TRAP COMMAND MSG
54
NOTIFICATION MSG RECEIVED?
56
N
Y
DISPLAY TEXT OF TRAPPED DOCUMENT
58
CONTINUE TRACKING?
60
N
Y
SEND DESIRED COMMAND MSG
64
SEND COMMAND MSG TO RETURN TO NORMAL EXECUTION
62
END
RESPONSE MSG RECEIVED?
66
N
Y
EXTRACT MARKER INFORMATION AND HIGHLIGHT CORRESPONDING TEXT IN DISPLAYED DOCUMENT
68

FIG. 4

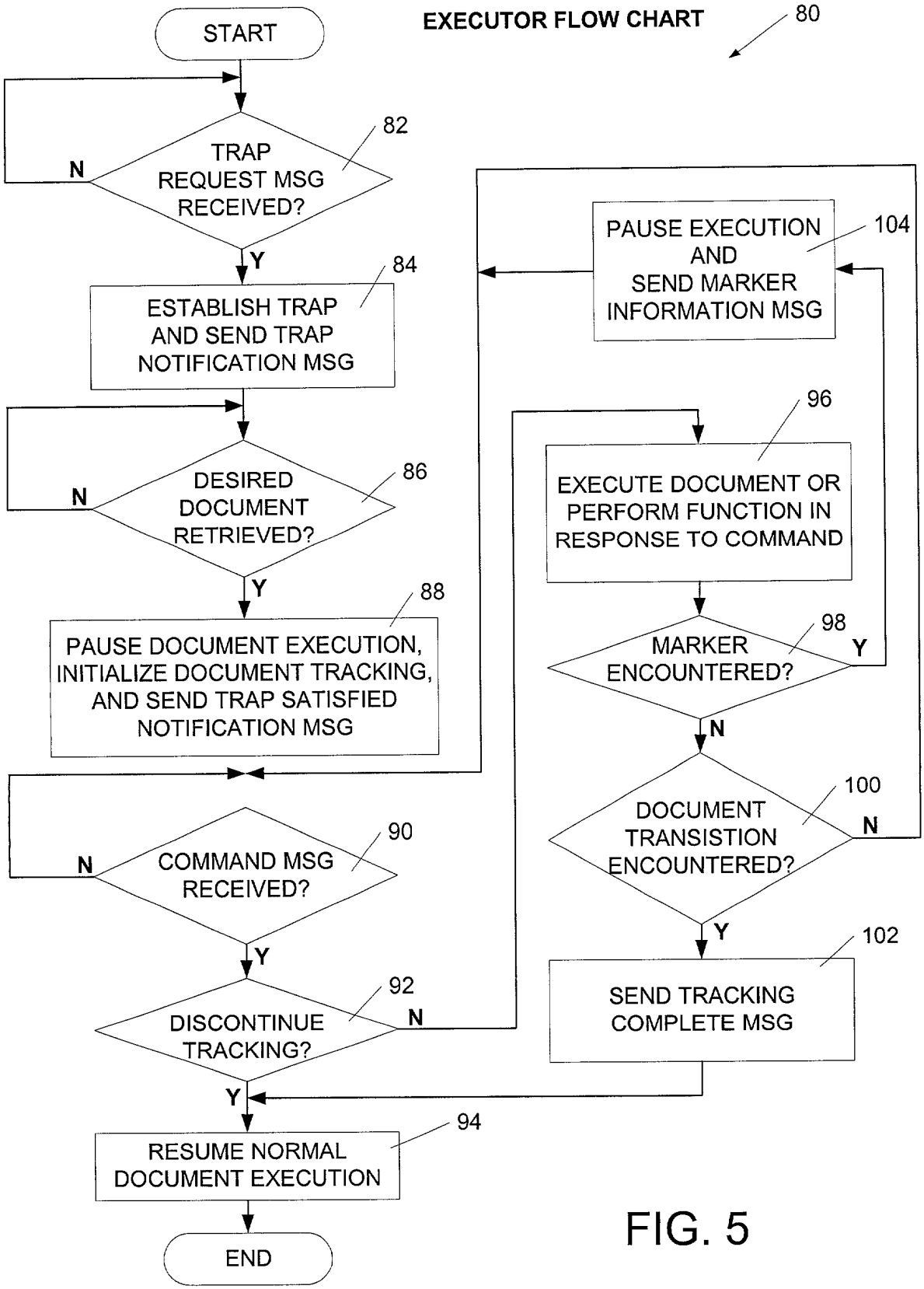
EXECUTOR FLOW CHART
80
START
TRAP REQUEST MSG RECEIVED?
82
N
Y
ESTABLISH TRAP AND SEND TRAP NOTIFICATION MSG
84
DESIRED DOCUMENT RETRIEVED?
86
N
Y
PAUSE DOCUMENT EXECUTION, INITIALIZE DOCUMENT TRACKING, AND SEND TRAP SATISFIED NOTIFICATION MSG
88
COMMAND MSG RECEIVED?
90
N
Y
DISCONTINUE TRACKING?
92
N
Y
RESUME NORMAL DOCUMENT EXECUTION
94
END
PAUSE EXECUTION AND SEND MARKER INFORMATION MSG
104
EXECUTE DOCUMENT OR PERFORM FUNCTION IN RESPONSE TO COMMAND
96
MARKER ENCOUNTERED?
98
Y
N
DOCUMENT TRANSISTION ENCOUNTERED?
100
N
Y
SEND TRACKING COMPLETE MSG
102

FIG. 5